

## Claims

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An automatic identification system for accounting for and identifying a plurality of surgical sponges used during a surgical procedure, comprising:

machine-readable information located on a plurality of surgical sponges, each sponge of said plurality of surgical sponges having unique machine-readable information located thereon, and wherein said unique machine-readable information is unique for at least one surgical procedure.

- 1 2. The automatic identification system of Claim 1, wherein said unique machine-readable information is located on a substrate, said substrate positioned on a respective surgical sponge.
- 1 3. The automatic identification system of Claim 1, wherein each said surgical sponge further includes an x-ray detectable element.
- 1 4. The automatic identification system of Claim 1, wherein said machine-readable information is contained within said surgical sponge.
- The automatic identification system of Claim 1, wherein said machine-readable information
  is contained on said surgical sponge.
- 1 6. The automatic identification system of Claim 1, wherein each of said plurality of surgical sponges further comprises unique human-readable information thereon associated with its respective unique machine-readable information.
- 7. The automatic identification system of Claim 1, wherein said information is made to be body fluid repellant to prevent obscuration thereof during reading.



- 1 8. The automatic identification system of Claim 7, wherein said substrate comprises a thin
- 2 film.
- 1 9. The automatic identification system of Claim 2, wherein said substrate is formed of inert
- 2 material.
- 1 10. The automatic identification system of Claim 1, wherein said machine-readable information
- 2 comprises bar code information.
- 1 11. The automatic identification system of Claim 1, wherein said machine-readable information
- 2 comprises compressed symbology.
- 1 12. The automatic identification system of Claim 1, wherein said unique machine readable
- 2 information is located on a substrate, said substrate positioned on a respective sponge, said
- 3 substrate comprising an adhesive for attaching said substrate to the surgical sponge.
- 1 13. The automatic identification system of Claim 12, wherein said adhesive comprises an x-
- 2 ray detectable element.
- 1 14. The automatic identification system of Claim 13, wherein said x-ray detectable element
- 2 comprises barium sulfate.
- 1 15. The automatic identification system of Claim 12, wherein said adhesive is of a type which
- 2 provides attachment by the application of heat thereto.
- 1 16. The automatic identification system of Claim 1, wherein said machine readable information
- 2 is located on a substrate, said substrate being positioned on a respective sponge, said substrate
- 3 comprising biologically inert material.



- 1 17. A surgical sponge system for accounting for and identifying a plurality of surgical sponges 2 used during a surgical procedure, comprising:
- a plurality of surgical sponges, each sponge having unique machine readable information located thereon, wherein said unique machine readable information is unique for at least one surgical procedure.
- 1 18. The automatic identification system of Claim 17, wherein said unique machine-readable
- 2 information is located on a substrate, said substrate positioned on a respective surgical sponge.
- 1 19. The automatic identification system of Claim 17, wherein each said surgical sponge further
- 2 includes an x-ray detectable element.
- 1 20. The automatic identification system of Claim 17, wherein said machine-readable
- 2 information is contained within said surgical sponge.
- 1 21. The automatic identification system of Claim 17, wherein said machine-readable
- 2 information is contained on said surgical sponge.
- 1 22. The automatic identification system of Claim 17, wherein each of said plurality of surgical
- 2 sponges further comprises unique human-readable information thereon associated with its
- 3 respective unique machine-readable information.
- 1 23. The automatic identification system of Claim 17, wherein said information is made to be
- 2 body fluid repellant to prevent obscuration thereof during reading.
- 1 24. The automatic identification system of Claim 23, wherein said substrate comprises a thin
- 2 film.





- 1 25. The automatic identification system of Claim 18, wherein said substrate is formed of inert
- 2 material.
- 1 26. The automatic identification system of Claim 17, wherein said machine-readable
- 2 information comprises bar code information.
- 1 27. The automatic identification system of Claim 17, wherein said machine-readable
- 2 information comprises compressed symbology.
- 1 28. The automatic identification system of Claim 17, wherein said unique machine readable
- 2 information is located on a substrate, said substrate positioned on a respective sponge, said
- 3 substrate comprising an adhesive for attaching said substrate to the surgical sponge.